

Serial No. 09/751,975

2

199-1933 (VGT 0137 PA)

In The Claims

1. (Currently Amended) An apparatus for separating individual circuit boards from a multiple board array with pre-scored planes and a plurality of electrical components comprising:

~~a plurality of splitting elements at least one splitting element positioned along a paired one of the pre-scored planes; and~~

~~at least one torque inducing element using edge loading to mechanically force the multiple board array onto said plurality of splitting elements at least one splitting element and thereby breaking the multiple board array along the pre-scored planes, said at least one torque inducing element forcing the multiple board array without loading the plurality of electrical components.~~

2. (Original) An apparatus as described in claim 1 further comprising:

a stabilizing element exerting a load on the surface of the multiple board array and thereby reducing board flex.

3. (Original) An apparatus as described in claim 2 wherein said stabilizing element includes a plate element; and

a plurality of spring elements, said plurality of spring elements pushing said plate element onto the multiple board array.

4. (Original) An apparatus as described in claim 1 wherein said at least one splitting element is wedge shaped.

5. (Original) An apparatus as described in claim 1 wherein said at least one splitting element is block shaped.

Serial No. 09/751,975

3

199-1933 (VGT 0137 PA)

6. (Currently Amended) An apparatus as described in claim 1 further comprising:

a transport element for automatically aligning the pre-scored planes with positioning said plurality of splitting elements ~~at least one splitting element along one of the pre-scored planes~~.

7. (Original) An apparatus as described in claim 1 wherein said transport element includes a plurality of wheels.

8. (Original) An apparatus as described in claim 1 wherein said at least one torque moving element is a pneumatic lever.

9. (Currently Amended) An apparatus for separating individual circuit board from a multiple board array with pre-scored planes and a plurality of electrical components comprising:

at least one splitting element positioned along one of the pre-scored planes; and

at least one torque inducing element using surface loading to mechanically force the multiple board array onto said at least one splitting element and thereby breaking the multiple board array along the pre-scored plane said at least one torque inducing element forcing the multiple board array without loading the plurality of electrical components; and

a transport element for automatically aligning one of the pre-scored planes with positioning said at least one splitting element ~~along one of the pre-scored planes~~.

Serial No. 09/751,975

4

199-1933 (VGT 0137 PA)

10. (Original) An apparatus as described in claim 9 further comprising:

a stabilizing element exerting a load on the surface of the multiple board array and thereby reducing board flex.

11. (Original) An apparatus as described in claim 10 wherein said stabilizing element includes a plate element; and

a plurality of spring elements, said plurality of spring elements pushing said plate element onto the multiple board array.

12. (Original) An apparatus as described in claim 9 wherein said at least one splitting element is wedge shaped.

13. (Original) An apparatus as described in claim 9 wherein said at least one splitting element is block shaped.

14. (Original) An apparatus as described in claim 9 wherein said transport element includes a plurality of wheels.

15. (Original) An apparatus as described in claim 9 wherein said at least one torque moving element is a pneumatic lever.

16. (Currently Amended) A method for separating individual circuit boards from a multiple board array with pre-scored planes comprising:

aligning one of the pre-scored planes with positioning a splitting element along one of the pre-scored planes, and

Serial No. 09/751,975

5

199-1933 (VGT 0137 PA)

inducing torque on the multiple board array such that the multiple board array is forced onto the splitting element and breaks along the pre-scored plane.

17. (Original) A method for separating individual circuit boards as described in claim 16 further comprising:

loading the surface of the multiple board array to reduce board flex.

18. (Currently Amended) A method of separating individual circuit boards from a multiple board array as described in claim 16 further comprising:

~~transporting the multiple board array using a plurality of wheels~~
affixing a removable shield element to an individual circuit board portion of the multiple board array; and

loading the removable shield element to reduce board flex.

19. (Original) A method of separating individual circuit boards from a multiple board array with pre-scored planes as described in claim 16 further comprising:

repeating said positioning and said inducing torque on each pre-scored plane.

20. (Currently Amended) An apparatus as described in claim 9 wherein said torque inducing element applies said surface loading to the multiple board array by way of a shield element attached to the individual circuit board multiple board array such that the plurality of electrical components remain undamaged.

Serial No. 09/751,975

6

199-1933 (VGT 0137 PA)

21. (Currently Amended) A method as described in claim 16 wherein said inducing torque on the multiple board array includes transferring load from a torque inducing element through a shield element into a portion of the multiple board array.